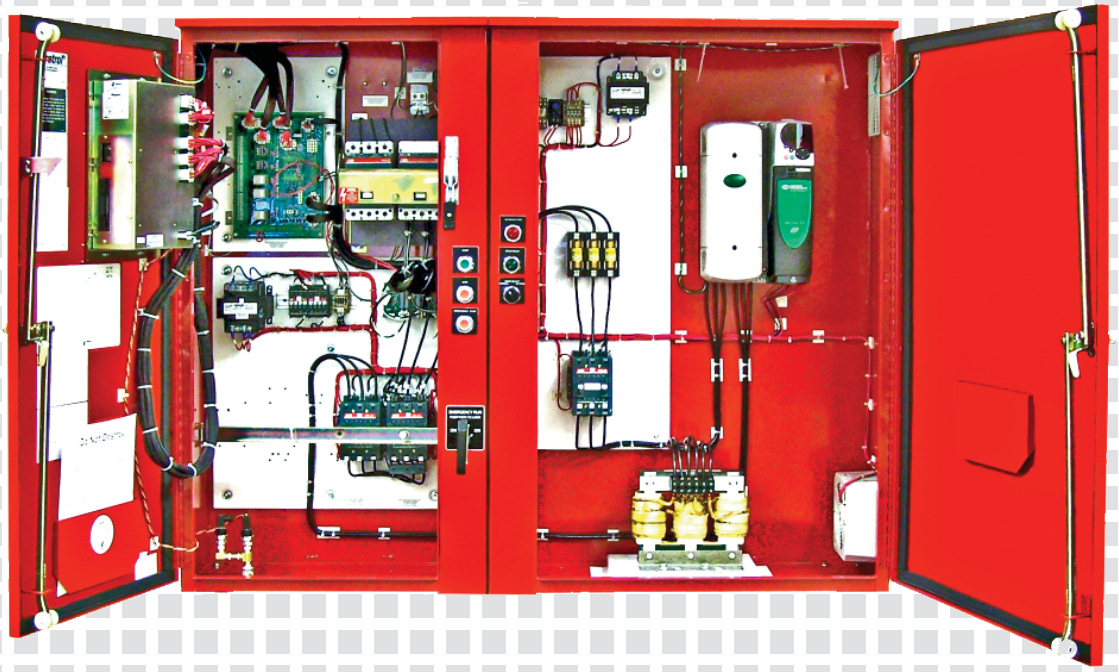
Variable Speed
Electric Fire Pump Controllers



Firetrol®

EMERSON™
Network Power

Side-by-side disconnect/ circuit breaker provides single handle sequencing

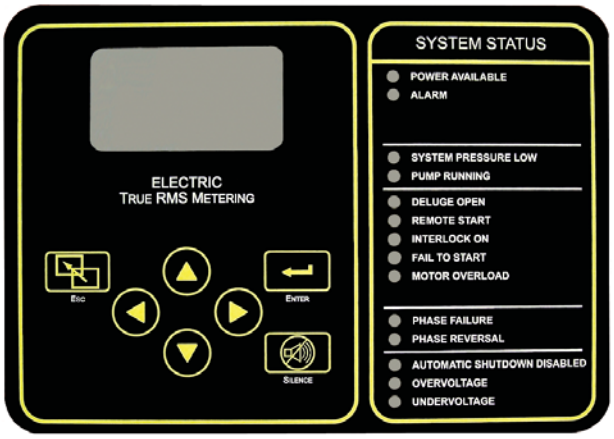
Controls the speed of a centrifugal pump to limit the system pressure in a fire sprinkler system.

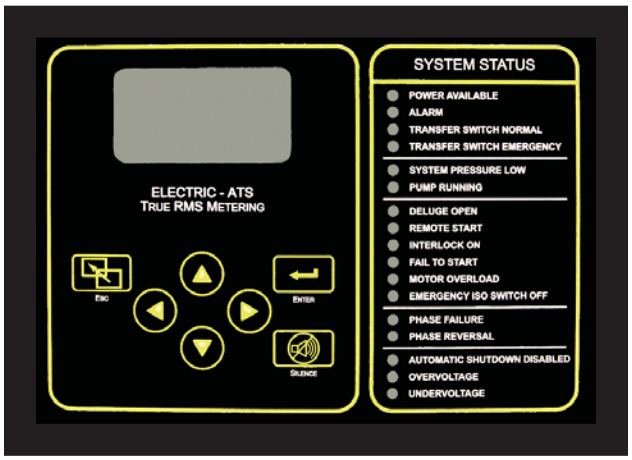
Firetrol® variable speed electric fire pump controllers provide a variable frequency drive (VFD) in a PID process control loop to control the speed of a centrifugal pump for the purpose of limiting the system pressure in a fire sprinkler system. The Mark IIXG monitors the VFD, and if a problem is detected, switches the controller to bypass mode. The controllers are available in the following configurations:

FTA3100 - VFD with Across-The-Line Bypass
FTA3110 - VFD with Autotransformer Bypass
FTA3130 - VFD with Digital Soft Start Bypass

The controllers include pilot lights for indication of Drive Ready and Bypass Active and also a selector switch for manual bypass operation.

These Controllers are available assembled with power transfer switches for use with an emergency generator set or second utility power source.





Operator Interface

The fire pump controllers feature an operator interface with user keypad. The interface monitors and displays motor operating conditions, including all alarms, events, and pressure conditions. All alarms, events, and pressure conditions are displayed with a time and date stamp. The display is a 128x64 Backlit LCD capable of customized graphics and Cyrillic type character display. The display and interface are NEMA rated for Type 2, 3R, 4, 4X, and 12 protection and is fully accessible without opening the controller door. The user interface utilizes multiple levels of password protection for system security. A minimum of 3 password levels are provided.

Approvals

Firetrol fire pump controllers are listed by Underwriters' Laboratories, Inc., in accordance with UL218, *Standard for Fire Pump Controllers*, CSA, *Standard for Industrial Control Equipment*. They are built to meet or exceed the requirements of the approving authorities as well as

NEMA, the latest editions of NFPA 20, *Installation of Centrifugal Fire Pumps*, NFPA 70, *National Electrical Code* and are approved by Factory Mutual.

Digital Status/Alarm Messages

The digital display indicates text messages for the stats and alarm conditions of:

- Motor On
- Minimum Run Time / Off Delay Time
- Fail to Start
- Under Voltage
- Locked Rotor Trip
- Emergency Start
- Drive Not Installed
- Disk Error
- Pressure Error
- Sequential Start Time
- Local Start
- Remote Start
- System Battery Low
- Over Voltage
- Over Frequency
- Motor Over 320%
- Motor Overload
- Disk Near Full

The Sequential Start Timer and Minimum Run Timer/Off Delay Times are displayed as numeric values reflecting the value of the remaining time.

LED Visual Indicators

LED indicators, visible with the door closed, indicate:

- Power Available
- Pump Running
- Remote Start
- Deluge Open
- Phase Failure
- Interlock On
- Motor Overload
- Automatic Shutdown Disabled
- Overvoltage
- Alarm
- System Pressure Low
- Transfer Switch Normal
- Transfer Switch Emergency
- Phase Reversal
- Fail To Start
- Emerg. Iso. Switch Off
- Undervoltage

Standard features include:

- Voltage surge protector
- Main Disconnect Switch sized for connected motor horsepower and voltage
- Fire pump Circuit Breaker
- Single handle Isolating Disconnect Switch/Circuit Breaker mechanism
- Motor contactor
- Emergency Manual Run Mechanism to mechanically close motor contactor contacts in an emergency condition
- Built-in Start and Stop push-buttons to bypass automatic start circuits
- Minimum Run Timer / Off Delay Timer
- Daylight Savings Time Option
- Weekly Test Timer
- Elapsed Time Meter
- Door mounted display/interface panel featuring a 128 x 64 pixel backlit LCD Graphical Display, Membrane Type User Control Push-buttons and easy to read LED Indicators for:
  - POWER AVAILABLE
  - ALARM
  - TRANSFER SWITCH NORMAL (If unit ordered with Automatic Power Transfer Switch)
  - TRANSFER SWITCH EMERGENCY (If unit ordered with Automatic Power Transfer Switch)
  - SYSTEM PRESSURE LOW
  - PUMP RUNNING
  - DELUGE OPEN
  - REMOTE START
  - INTERLOCK ON
  - FAIL TO START
  - MOTOR OVERLOAD
  - EMERGENCY ISO SWITCH OFF (If unit ordered with Automatic Power Transfer Switch)
  - PHASE FAILURE
  - PHASE REVERSAL
  - AUTOMATIC SHUTDOWN DISABLED
  - OVERVOLTAGE
  - UNDERVOLTAGE
- Digital Pressure Display
- USB Host Controller and Port
- Solid State Pressure Transducer
- Data Log
- Event Log (3000 Events)
- True RMS Metering with simultaneous 3 Phase Display of Amps, Volts, Frequency, Pressure and Alarm Messages
- Disk Error message
- Disk Near Full message
- Pressure Error message
- Motor Over 320% message
- Local Start message
- Remote Start message
- Emergency Start message
- Fail To Start message
- Undervoltage message
- Overvoltage message
- NEMA Type 12 (IEC IP54) enclosure
- Suitable for use as Service Equipment
- Each standard controller comes with user configurable options for:
  - Interlock Alarm
  - Low Suction
  - User Defined Input
  - Low Pressure Audible
  - Pump Run
  - Weekly Test

Data Logging

The user interface monitors the system and logs the following data:

- Motor Calls/Starts
- Pump Total Run Time
- Pump Last Run Time
- Total Controller Pwr On Time
- Last Pump Start
- Min/Max System Pressure
- Last Phase Fail/Reversal
- Last Locked Rotor Trip
- Last Locked Rotor Current
- Min/Max Frequency
- Max Starting Currents
- Max Run Currents
- Min/Max Voltage per Phase while idle (not running)
- Min Voltage per Phase during Start
- Min/Max Voltage per Phase during Run

Event Recording

Memory - The controller records all operational and alarm events to system memory. All events are time and date stamped and include an index number. The system memory has the capability of storing 3000 events and allows the user access to the event log via the user interface. The user can scroll through the stored messages in groups of 1 or 10.

USB Host Controller

The controller is equipped with a built-in USB Host Controller. A USB port capable of accepting a USB Flash Memory Disk is provided. The controller saves all operational and alarm events to the flash memory on a daily basis. Each saved event is time and date stamped. The total amount of historical data saved depends on the size of the flash disk utilized. The operator can save settings and values to the flash disk on demand via the user interface.

USB Host Port and Flash Disk

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